



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

September 25, 2014

Mr. Scott Hoffman
CABE Associates, Inc.
PO Box 877
Dover, DE 19903

RE: PLUS review 2014-08-08, Connection Community Church

Dear Mr. Hoffman,

Thank you for meeting with State agency planners on August 27, 2014 to discuss the proposed plans for the Connection Community Church. According to the information received, you are seeking a site plan review for the development of a 24,747 sf church on 27 acres in New Castle County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as New Castle County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

Strategies for State Policies and Spending

This project is located in Investment Level 3 according to the Strategies for State Policies and Spending. This site is also located in the New Castle County Growth Zone. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments may support future growth in these areas, but please be advised that the State has other priorities for the near future. We encourage you to design the site with respect for the environmental features which are present.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known archaeological sites or National Register-listed property on this parcel. However, if there will be any development or construction project on this parcel, the

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developer should still be aware of Delaware's Unmarked Human Burials and Human Skeletal Remains Law, which is outlined in Chapter 54 of Title 7 of the Delaware Code.

Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Delaware Code Title 7, Chapter 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information:

www.history.delaware.gov/preservation/umhr.shtml and
www.history.delaware.gov/preservation/cemeteries.shtml.

Therefore, prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site (historic or pre-historic), historic cemetery or unmarked human remains. Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The location of this project (Tax Parcel 13-012.00-053) lies within the regulated airspace zones of Summit Airport, which is a public-use facility. Federal Aviation Regulation (FAR) Part 77 imposes height restrictions on any structures within these zones. DelDOT requires that the applicant for this project submits a “Proposed Construction/Alteration in Airport Zones Notification Form” in accordance with Delaware Code (2 *Del. C.* § 602).

This notification form can be submitted during the Record Plan review, but DelDOT’s Office of Aeronautics is willing to test hypothetical height numbers to prevent any future project complications. Please contact the Office of Aeronautics at (302) 760-2119 with any questions or concerns. A copy of the form for the benefit of the applicant(s) and anyone copied on this letter is attached.

- Per Section 2.3.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, Traffic Impact Studies (TIS) are warranted for developments generating more than 400 vehicle trip ends per day or 50 vehicle trip ends per hour. However, Section 2.3.2 provides that for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour, DelDOT may accept an Area Wide Study Fee of \$10 per daily trip in lieu of a TIS.

DelDOT estimates that the proposed development would generate 906 vehicle trip ends per typical Sunday and 298 vehicle trip ends per hour during the peak hour of that day. Therefore, a TIS would be warranted and payment of the Area Wide Study Fee is not an option. To obtain a scope of work for a TIS, the applicant may have their engineer contact Mr. Troy Brestel of this office. Mr. Brestel may be reached at (302) 760-2167.

Recognizing that some churches have traffic that differs from the standard rates used to calculate the above volumes, if the church believes those volumes are unrealistically high DelDOT would be willing to consider evidence to that effect, such as traffic counts at an existing location. It may be that they can demonstrate their peak hour trip generation would be under 200 vehicle trip ends and they would qualify to pay the Area Wide Study Fee in lieu of doing a TIS. If the developer chooses this option, payment would be due when the site plan is submitted for review.

Payment of the fee would not relieve the developer of responsibility for making off-site improvements or contributing to DelDOT capital projects. In accordance with Section 3.10.2 of DelDOT’s Standards and Regulations for Subdivision Streets and State Highway Access, needed off-site improvements or contributions would need to be shown on the record plan by illustration or note. Also, to accept the fee, DelDOT would need to know that New Castle County is not requiring a TIS. The County applies the same 50 vehicle trip ends per hour standard as DelDOT and DelDOT would only accept the fee in the absence of a County requirement for a TIS.

- The site entrance on Summit Bridge Road must be designed in accordance with DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access, which is available at http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf.

Department of Natural Resources and Environmental Control – Kevin Coyle 739-9071

TMDLs

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Appoquinimink River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the Appoquinimink River watershed calls for a 60 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for an 8 percent (freshwaters) reduction in bacteria from baseline conditions.
- A nutrient management plan is required under the *Delaware Nutrient Management law (3 Del. Chapter 22)* for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. This project's open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at 739-4811 for further information concerning compliance requirements – or, view the following weblink for additional information: <http://dda.delaware.gov/nutrients/index.shtml>

Water Supply

- The project information sheets state that individual on-site well water will be used to provide water for the proposed project. DNREC records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 95-CPCN-13. It is recommended that the developer contact Artesian Water Company to determine the availability of public water. Any public water utility providing water to the site must obtain a certificate of Public Convenience and Necessity (CPCN) from the Public Service Commission. Information on CPCNs and the application process can be obtained by contacting the Public Service Commission at 302-736-7547. Should an on-site Public/Miscellaneous Public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, and it must also be located at least 150 ft. from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site well(s) provided the well(s) can be constructed and located in compliance with all requirements of the Regulations Governing

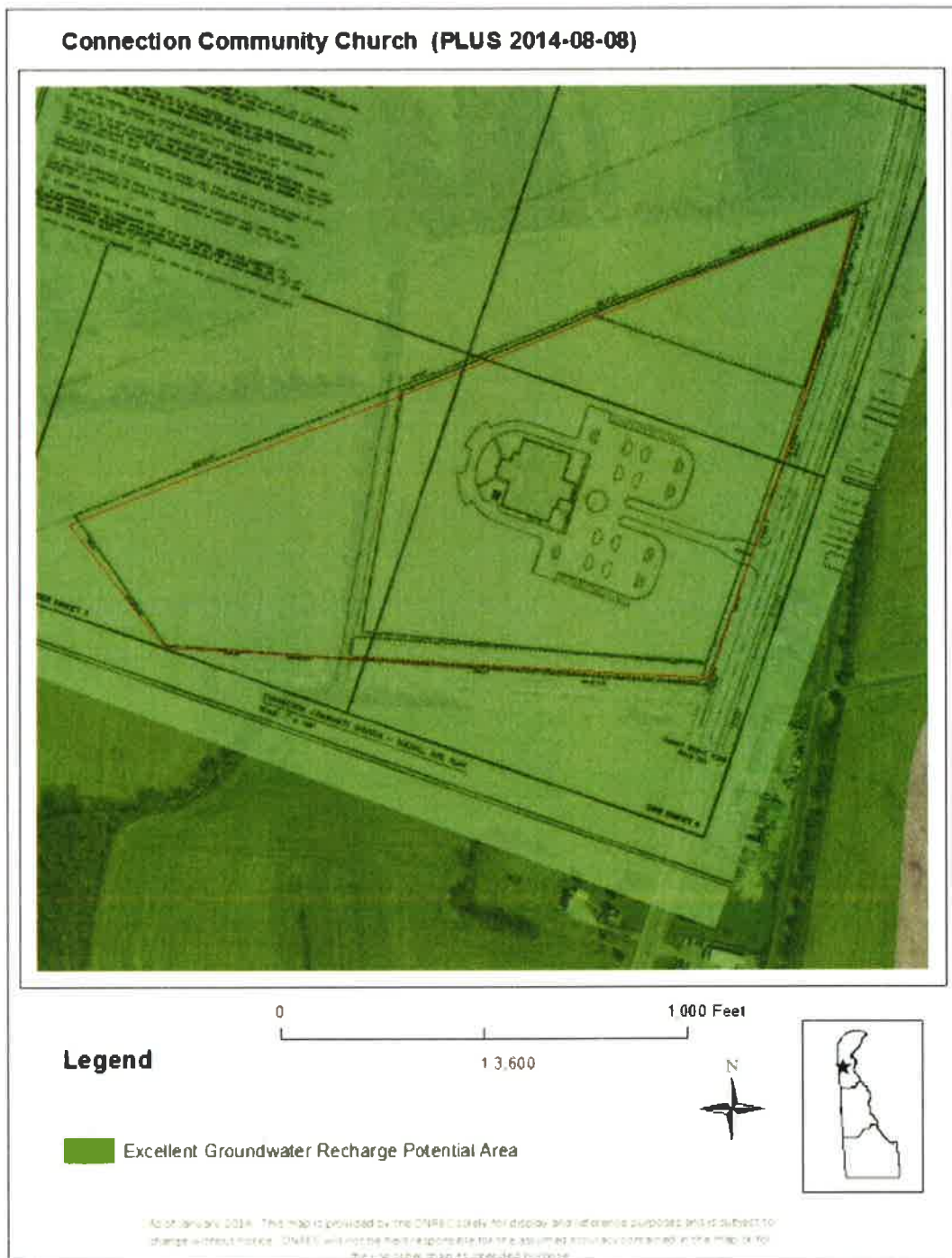
the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

- Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.
- All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Source Water Protection Areas

- The DNREC Water Supply Section has reviewed the above referenced PLUS project and determined that the project falls entirely within an excellent ground-water recharge potential area for New Castle County (see map).
- New Castle County (NCC) refers to excellent ground-water recharge potential areas as 'recharge areas'. Recharge areas are characterized as deposits of coarser grained material that have the best ability to transmit water vertically through the unsaturated zone to the water table. The NCC recharge areas were mapped using the methods described in the Delaware Geological Survey Open File Report No. 34, "Methodology for Mapping Ground-Water Recharge Areas in Delaware's Coastal Plain" (Andres, 1991), and depicted in a series of maps prepared by the Delaware Geological Survey (Butoryak and Tally, 1993).
- The applicant states that an onsite wastewater facility will be within the area of excellent recharge potential area.
- DNREC recommends:
 - The wastewater facility must maintain a 150-foot isolation distance from the public supply well in compliance with Delaware Regulations Governing the Construction and Use of Wells Sec. 4.01 A (8) and conform to all applicable articles in the NCC Unified Code Sec. 40.10.383.
 - The site plans show a storm-water management pond within the area of excellent ground-water recharge potential. The construction phase of this type of pond requires excavation, hauling, and grading. The heavy equipment used in this phase has the capacity to compact and degrade the structure of the strata that defines the area as an excellent ground water recharge area (Schueler, 2000a). Changes to the structural soil properties may cause significant reduction in recharge capacity. Installing storm-water management ponds in excellent ground-water recharge areas has the potential to contaminate the ground water beneath it and infiltrate into the aquifer (Schueler, 2000b).

- DNREC recommends:
 - Perform an environmental assessment report showing that *water quality* as well as *water quantity* of post development recharge is equal to or greater than pre-development recharge (Kaufmann, 2005).
 - In addition, because the excellent ground water recharge area can so quickly affect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.



References

- Andres, A. Scott, 1991, Methodology for Mapping Ground-Water Recharge Areas in Delaware's Coastal Plain: Delaware Geological Survey Open File Report No. 34, p. 18.
- Butoryak, Kathleen R., and Talley, John H., 1993, Delineation of Ground-Water Recharge Resource Protection Areas in the Coastal Plain of New Castle County, Delaware: Delaware Geological Survey Project Report for the Water Resources Agency for New Castle County, p. 26.

Kauffman, G.J., Wozniak, S.L., and Vonck, K.J., 2005, *Delaware Ground-Water Recharge Design Manual*: Newark, DE, Water Resources Agency, University of Delaware, p. 31.

<http://www.wr.udel.edu/swaphome/Publications/SWPguidancemanual.html>

Schueler, T. R., 2000a, The Compaction of Urban Soils, *in* Schueler, T.R., and Holland, H.K., eds., *The Practice of Watershed Protection*: Ellicott City, MD, Center for Watershed Protection, p. 210 - 218.

Schueler, T. R., 2000b, Pollutant Dynamics of Pond Muck, *in* Schueler, T.R., and Holland, H.K., eds., *The Practice of Watershed Protection*: Ellicott City, MD, Center for Watershed Protection, p. 453-460.

Sediment and Stormwater Program

- A sediment and stormwater plan will be required for the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as possible. The site topography, soils mapping, pre and post development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through New Castle County Department of Land Use Engineering Section. Contact Department of Land Use at (302) 395-5470 for details regarding submittal requirements and fees (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101).

Hazardous Waste Sites

- If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del.C. Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.”
- There are no SIRS sites or salvage yards found within a ½-mile radius of the proposed project.

Tank Management Section

- Please be aware:
 - If a release of a Regulated Substance occurs at the proposed project site, compliance of 7 Del.C. Chapter 60, 7 Del.C., Chapter 74 and DE Admin. Code 1351, State of Delaware *Regulations Governing Underground Storage Tank Systems* (the UST Regulations) is required.
 - There are no confirmed leaking underground storage tank (LUST) projects located within a quarter mile from the proposed project area.
 - No environmental impacts are anticipated; however, per the **UST Regulations: Part E, § 1. Reporting Requirements:**
 - Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
 - The Department’s 24-hour Release Hot Line by calling 800-662-8802; and The DNREC Tank Management Section by calling 302-395-2500.

Air Quality

- The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply:

Table 1: Potential Regulatory Requirements	
Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. Use covers on trucks that transport material to and from site to prevent visible emissions.
7 DE Admin. Code 1113 – Open Burning	Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. Prohibit the burning of land clearing debris. Prohibit the burning of trash or building materials/debris.
7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State Implementation Plan	Require, for any “federal action,” a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed any of the de minimus levels (See Section 3.2.1)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	Use structural/ paint coatings that are low in Volatile Organic Compounds. Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	Ensure that emissions of nitrogen oxides (NO _x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO ₂), carbon monoxide (CO), and carbon dioxide (CO ₂) from emergency generators meet the emissions limits established. (See section 3.2). Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For a complete listing of all Delaware applicable regulations, please look at our website:

<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

Delaware State Fire Marshall’s Office – Contact Duane Fox 739-4394

- At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):
 - Fire Protection Water Requirements:

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.
- Where a water distribution system is proposed for a church (Place of Assembly) site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.
- Fire Protection Features:
 - All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
 - Buildings greater than 10,000 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
 - Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
 - Show Fire Lanes and Sign Detail as shown in DSFPR
- Accessibility:
 - All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the site from Summit Bridge Road must be constructed so fire department apparatus may negotiate it. If a “center island” is placed at an entrance road, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.
 - Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
 - The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
 - The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- Gas Piping and System Information
 - Provide type of fuel proposed, and show locations of bulk containers on plan.
- Required Notes:
 - Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
 - Proposed Use
 - Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
 - Square footage of each structure (Total of all Floors)

- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Because the proposed development would generate more than 200 vehicle trips per day, the developer should expect a Pre-Submittal Meeting to be required before plans are submitted for review. Guidance on what will be covered at this meeting and how to prepare for is located at http://www.deldot.gov/information/business/subdivisions/Pre-Submittal_Meeting_Requirements.doc. The form needed to request this meeting is available at http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.doc. As necessary, the developer's engineer may contact the Subdivision Manager for southern New Castle County, Mr. Pao Lin, with any questions on what is needed. Mr. Lin may be reached at (302) 760-2157.
- Please be advised that DelDOT has advertised for comment a comprehensive revision of the Standards and Regulations. The comment period ran through June 30 and DelDOT could adopt this revision as soon as November 2014. Implementation guidance has not been developed but DelDOT recommends that the developer's engineer become familiar with the proposed changes and assess whether any of them could be relevant to this project. Information on the proposed revision is available in the Register of Regulations and at http://www.deldot.gov/information/pubs_forms/revisions_to_ASR/index.shtml.

Department of Natural Resources and Environmental Control – Kevin Coyle 739-9071

Bog Turtle

- Although there are no known bog turtle habitats on this project site, this project is in a corridor between known bog turtle locations. Because streams are potential migration corridors between habitats, machinery and any other equipment should be kept out of any streams in the area from April 1 to June 30th.

Nuisance Waterfowl

- The following comments apply if there is a stormwater management pond proposed in the study area. Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns surrounding ponds provide attractive habitat for these species.
- To deter waterfowl from taking up residence in these ponds, DNREC recommends planting the surrounding open space with a mix of native wildflower plantings (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements). It is best to mow the open space area surrounding the pond only once a year, either in March or November. If mowing must occur more often, it would be helpful to leave a minimum buffer of 15-30 feet in width to be mowed annually. This area would be necessary to adequately deter the waterfowl from inhabiting the area (when the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond). In addition to deterring nuisance waterfowl, the native wildflower mix will also serve to attract bees, butterflies, and other pollinators, and reduce run-off, which can contain oil and other pollutants that homeowners may use on their lawns and driveways.
- Program botanist, Bill McAvoy, would gladly assist in drafting a list of plants suitable for this site. Bill can be contacted at (302) 735-8668 or William.McAvoy@state.de.us.

Soils Assessment

- DNREC strongly recommends that the applicant avoid the poorly-drained wetland associated (hydric) soils that bound the western edge of the parcel (Figure 1). Potential unmapped hydric soils may also be present in the immediate vicinity of an apparent ditch bisecting the parcel (based on 2012 aerial photography). Therefore, a field evaluation by a licensed soil scientist is strongly recommended (ARCPACS certified and licensed Class D) to make a site-specific field delineation for potential hydric soils in this parcel. Please contact the Underground Discharges Branch at 739-9948 for a list of licensed soil scientists.

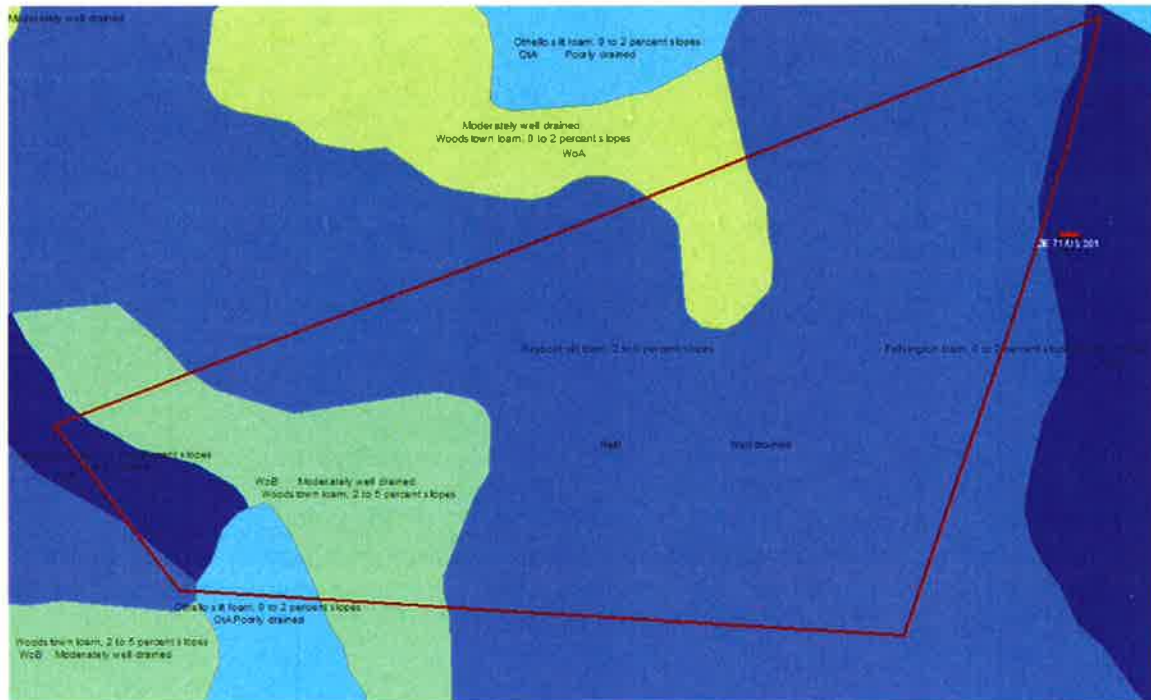


Figure 1: NRCS soil mapping update in the immediate vicinity of the proposed project

Additional information on TMDLs and water quality

- In response to concerns about the need for reducing nonpoint source nutrient (nitrogen and phosphorus) and bacterial pollutants to levels sufficient to meet the prescribed TMDL reduction requirements in the Appoquinimink watershed, a multifaceted and comprehensive process known as a Pollution Control Strategy (PCS) has been developed to enable such reductions. Specifically, a PCS is a combination of best management practices and control technologies that reduce nutrient and bacterial pollutant runoff loading in waters of a given watershed to level(s) consistent with the TMDL(s) reduction levels specified for that watershed. The PCS for the Appoquinimink River watershed consists of recommendations from the following four areas: agriculture, land preservation (open space), stormwater, and wastewater. Although a Pollution Control Strategy (PCS) to help realize the required TMDL nutrient and bacterial load reduction requirements has been established for the Appoquinimink watershed, attainment of the load reduction(s) is hampered by the fact that the strategies in the Appoquinimink PCS are mostly voluntary in nature. Additional information about Appoquinimink River PCS is available from the follow web link:

<http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedManagementPlans.aspx>.
- In further support of the PCS, the applicant is also strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended BMPs:

- Completion of a United States Army Corps of Engineers (USACE) approved field wetlands delineation before commencing any development activities on this parcel(s). The USACE can be reached by phone at 736-9763.
- Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all waterbodies (including ditches) and wetlands (field delineated and approved by the USACE).
- Maintain as much of the existing open space as possible; DNREC further suggests additional native tree and native herbaceous planting, wherever possible.
- Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation.
- Wherever practicable, use pervious paving materials (instead of conventional asphalt and concrete) to mitigate stormwater runoff impacts. The parking area adjacent to the church is an especially good area for the implementation of pervious paving materials in subject parcel.
- Use rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts via runoff from impervious surfaces. Please contact Lara Allison at 739-9939 for further information about raingardens.
- Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project’s impact(s) on baseline water quality. DNREC strongly encourages the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact John Martin or Jen Walls at 302-739-9939 for further information on the protocol.

Additional information on tank management

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas. If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

Additional information on hazardous waste sites

- DNREC strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.
- Additional remediation may be required if the project property or site is re-zoned by the county.
- Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.

Additional information on air quality

- New homes and businesses may emit, or cause to be emitted, air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
 - Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.
- Air emissions generated from new homes and businesses include emissions from the following activities:
 - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
 - The generation of electricity needed to support your home or business, and
 - All transportation activity.
- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) could not be quantified. DAQ was able, however, to quantify the mobile emissions based on the proposed daily trip data presented in the application and data taken from the ITE Trip Generation Manual, 8th Edition. Table 2 – Projected Air Quality Emissions represents the actual impact the Connection Community Church may have on air quality.

Table 2: Projected Air Quality Emissions for Connection Community Church					
Emissions Attributable to Connection Community Church (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO _x)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Mobile emissions	1.08	1.42	*	*	*

(*) Indicates data is not available.

- Note that emissions associated with the actual construction of the road, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.
- DNREC DAQ encourages sustainable growth practices that:
 - Control sprawl;
 - Preserve rural and forested areas;
 - Identify conflicting land use priorities;
 - Encourage growth on previously developed sites and denser communities;
 - Coordinate transportation, housing, environment, and climate protection plans with land use plans; and
 - Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.
- Additional measures may be taken to substantially reduce the air emissions which include:
 - Constructing with only energy efficient products. Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
 - Offering geothermal and/or photo voltaic energy options. These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
 - Providing tie-ins to the nearest bike paths and links to any nearby mass transport system. These measures can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk, a bike path or mass transit, 7 pounds of VOC and 11.5 pounds of NO_x are reduced each year.
 - Using retrofitted diesel engines during construction. This includes equipment that are on-site as well as equipment used to transport materials to and from site.

- Using pre-painted/pre-coated flooring, cabinets, fencing, etc. These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- Planting trees in vegetative buffer areas. Trees reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.
- This is a partial list, and there are additional things that can be done to reduce the impact of the project. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Connection Community Church project.

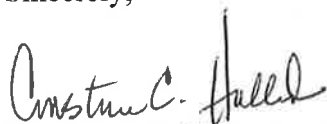
Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP
Director, Office of State Planning Coordination

CC: New Castle County



Proposed Construction/Alteration in Airport Zones: Notification Form (page 1 of 2)



revision date: 1/7/2013

Instructions for Applicant

Why do I need to do this?

If you have been asked to complete this form, it means that your building permit is for a property that is located near an airport¹. All public-use airports are surrounded by areas where airspace is protected by state and federal regulations. If a structure is built too high on a property within one of these areas, it is considered an airspace obstruction.

These obstructions create serious public safety hazards due to the potential for crashes. Therefore, The Delaware Department of Transportation (DelDOT) is required by Title 2 of the Delaware Code² to test the proposed structure against criteria³ from the Federal Aviation Administration (FAA).

What does DelDOT need from me?

These required items⁴ are to be submitted to the Office of Aeronautics, at least 45 days prior to the start of construction:

- Page 2 of this form, completed and signed
- Site plan clearly stating highest point of structure
- Any other supporting information (optional)

How do I get this form to DelDOT?

All required materials can be sent to DelDOT in 1 of 3 ways:

- e-mail to: deldot_aeronautics@state.de.us
- fax to: Josh Thomas at (302) 739-2251
- mail to: DelDOT Planning
Office of Aeronautics
PO Box 778
Dover, DE 19903

What happens during the review?

The structure(s) location and height are tested against the airspace heights³ at the nearby airport(s). Once a decision has been made, you and the appropriate county or municipality will be notified. **Please allow 5-7 business days for the review to be completed.**

Who do I contact for help?

Delaware Department of Transportation (DelDOT)
Division of Planning
Office of Aeronautics
Josh Thomas
(302) 760-4834
deldot_aeronautics@state.de.us

Where is the fine print?

Definitions: AGL = above ground level, AMSL = above mean sea level, NAD = North American Datum

¹ All properties within the geographic areas that encompass the entire FAR Part 77 imaginary surfaces for public-use airports in Delaware will require an obstruction review. DelDOT will provide county and municipal officials with maps depicting these boundaries.

² See Title 2, Chapters 1, 3, and 6 for details. For information about obstruction and notice criteria, see Chapter 6, § 602.

³ FAA imaginary airspace surfaces are used to evaluate the structures. See 14 CFR Part 77, § 77.19 for details. These imaginary surfaces are based on airport facilities and operations, and are subject to change.

⁴ The Delaware Department of Transportation (DelDOT) is not responsible for the accuracy of the provided information. It is the responsibility of the provider to supply accurate information for the evaluation (obstruction review). All required items are marked with a *, therefore **incomplete forms will be returned to the applicant for completion**. In addition, site plans and other materials given to DelDOT as a part of this review process will not be returned.





Proposed Construction/Alteration in Airport Zones: Notification Form (page 2 of 2)



Applicant Information: (items with a * are required)

revision date: 1/7/2013

*First Name: _____	*Last Name: _____
Company: _____	*Phone: (____) _____-_____
*Street Address: _____	
*City: _____	*State: _____ *Zip: _____
E-mail: _____	Fax: (____) _____-_____

Project Site Information: (items with a * are required)

*Owner First Name: _____	*Owner Last Name: _____						
*Site Address: _____	*City: _____ *Zip: _____						
* Notice of: <input type="radio"/> New Construction <input type="radio"/> Alteration	* Duration: <input type="radio"/> Permanent <input type="radio"/> Temporary						
* Structure Type: <input type="radio"/> Residential Building <input type="radio"/> Commercial Building <input type="radio"/> Tower/Pole <input type="radio"/> Other _____	*Tax Parcel ID: _____						
* Description of Project and/or Comments: <div style="border: 1px solid black; height: 100px; width: 100%;"></div>	Coordinates of highest point above ground: (Latitude/Longitude, NAD 83 datum) ____° ____' ____" N, ____° ____' ____" W						
	<div style="border: 1px dashed black; padding: 5px;"><table><tr><td>* Site Elevation (AMSL):</td><td>_____ feet</td></tr><tr><td>* Final Structure Height (AGL):</td><td>_____ feet</td></tr><tr><td>*Total Structure Elevation (AMSL):</td><td>_____ feet</td></tr></table></div>	* Site Elevation (AMSL):	_____ feet	* Final Structure Height (AGL):	_____ feet	*Total Structure Elevation (AMSL):	_____ feet
* Site Elevation (AMSL):	_____ feet						
* Final Structure Height (AGL):	_____ feet						
*Total Structure Elevation (AMSL):	_____ feet						
<input type="checkbox"/> *I hereby certify that all of the information above is complete and correct to the best of my knowledge. I also certify that I have included all the necessary information for this review (including a site plan). I agree to comply with the decision of this review.							
*Applicant Signature: _____	*Date: _____						

Obstruction Review Decision: (*DeIDOT office-use only*)

Date Received: _____ County: _____	Decision: <input type="checkbox"/> Approve <input type="checkbox"/> Disapprove
Nearest public-use airport: _____	<input type="checkbox"/> Approve with Conditions [†]
Distance to nearest public-use runway: _____	[†] This approval is contingent upon the applicant(s) meeting one or more of the following conditions:
FAA 7460 required: Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/> = Applicant(s) must notify the FAA by submitting a 7460 form prior to and after construction
Previous FAA Case Number: Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/> = Other condition(s) as described in detail in attached, signed letter
If Yes, number: _____	
Office of Aeronautics Representative Name: _____	
Authorized Signature: _____ Date: _____	

